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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,693	06/01/2001	Jack A. Wiens	16587-13 US	2495

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EXAMINER	
SUN, XIUQIN	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/872,693	WIENS, JACK A.	
	Examiner	Art Unit	
	Xiuqin Sun	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,9 and 11-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,9 and 11-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4 and 9, 11 and12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns (U.S. Pat. No. RE36510) in view of Ryan (U.S. Pat. No. 5913180), Harris (U.S. Pat. No. 3995145) and Beaudoin et al. (U.S. Pat. No. 6047250)

Burns teaches a method and system for passively operating and monitoring the service of a work vehicle during distribution of fluid products from a service vehicle to one or more fill ports of the work vehicle (see Abstract; col. 1, lines 13-24; col. 7, lines 62-67; col. 8, lines 1-5, lines 61-67 and col. 9, lines 1-13), comprising the steps and means of: (a) providing a plurality of fill port identifying data sources for identifying the fill ports of a work vehicle and the fluid products to be deposited thereinto (col. 8, lines 55-60; col. 11, lines 50-59 and col. 15, lines 10-13); (c) providing a reader capable of reading fill port data, and for transmitting the information read (col. 6, lines 38-67; col. 7, lines 1-5; col. 8, lines 61-67; and col. 9, lines 1-13); (e) attaching one of said data sources to each fill port on said vehicle to be serviced, each said data source being encoded to contain port data relating to the identity of the vehicle, the identity of the fill port, and the type of fluid product to be dispensed to the fill port (col. 8, lines 55-60; col.

11, lines 50-59 and col. 15, lines 10-13); (f) making one of a plurality of means for distribution of particular types of fluid products ready for dispensation from said service vehicle (col. 10, lines 13-67; col. 11, lines 42-50 and col. 8, lines 47-51); (g) determining at the service vehicle the type of fluid product being made ready for distribution (col. 10, lines 13-67; col. 11, lines 42-50 and col. 8, lines 47-51); (k) distributing the fluid product to the selected fill port (col. 11, line 60 to col. 12, line 4); (l) obtaining at the service vehicle a second set of data associated with the distribution of the particular type of fluid product to the selected fill port (col. 7, lines 12-45 and col. 12, lines 5-31); and (m) logging at the service vehicle the alarm signal, the received first set of data and the second set of data (col. 7, lines 62-67; col. 8, lines 1-5 and col. 12, lines 40-56).

Burns do not state explicitly: encoding said port identifying data sources magnetically; providing a run time sensor for generating a run time signal corresponding to the accumulated run time of a work vehicle engine; providing a reader capable of reading run time signals, and for transmitting the information read; attaching the run time sensor to a work vehicle to be serviced; using a hand-held unit to transmit said first set of data, obtained from a probe and associated with a particular vehicle port to be serviced, to said service vehicle; engaging said reader to said run time sensor to obtain at the work vehicle the run time signal, and transmitting said run time signal to the service vehicle in real time; engaging said reader to a data source associated with a particular vehicle fill port selected for service to obtain a first set of fill port data, and transmitting said first set of fill port data to the service vehicle in real time; receiving at the service vehicle the transmitted first set of fill port data in real time and using same

together with the known type of fluid product made ready for distribution to determine whether or not the selected fill port is about to be serviced with an appropriate fluid product, and generating an alarm signal commensurate therewith; logging at the service vehicle the run time signal; repeating said steps of delivering fluid to a particular vehicle port until service of each port on the vehicle is complete; causing a horn to be actuated by said signal to validate selection of each port as the intended port to be filled; causing said signal to sound an alarm warning of any improper distribution of the product.

Ryan discloses a fuel delivery control apparatus for the exchange of security, identification, and transaction information between a container and a fluid delivery system. Ryan teaches: providing a run time sensor for generating a run time signal corresponding to the accumulated run time of a work vehicle engine (col. 5, lines 57-67 and col. 6, lines 1-12); providing a reader capable of reading run time signals, and for transmitting the information read (col. 5, lines 57-67; col. 6, lines 1-12; col. 11, lines 11-23; col. 13, lines 7-67 and col. 14, lines 1-25); attaching the run time sensor to a work vehicle to be serviced (col. 5, lines 57-67; col. 6, lines 1-12; col. 11, lines 11-23; col. 13, lines 7-67 and col. 14, lines 1-25); engaging a reader to a run time sensor to obtain at the work vehicle the run time signal, and transmitting said run time signal to the service control center (col. 5, lines 57-67; col. 6, lines 1-12; col. 11, lines 11-23; col. 13, lines 7-67 and col. 14, lines 1-25); engaging said reader to a data source associated with a particular vehicle fill port selected for service to obtain a first set of fill port data, and transmitting said first set of fill port data to the service control center (col. 3, lines 40-67; col. 4, lines 1-6; col. 6, lines 13-32; col. 16, lines 44-50 and lines 63-67 and col. 17, lines

1-19); receiving at the service vehicle the transmitted first set of fill port data and using same together with the known type of fluid product made ready for distribution to determine whether or not the selected fill port is about to be serviced with an appropriate fluid product (col. 7, lines 59-67; col. 8, lines 1-16; col. 16, lines 44-50 and lines 63-67 and col. 17, lines 1-19); and logging at the service vehicle the run time signal (col. 11, lines 11-23; col. 13, lines 7-67; col. 14, lines 1-25; col. 19, lines 44-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teachings of Ryan in the invention of Burns in order to provide a passive system in which security, identification and fuel delivery transaction information can be exchanged and validated automatically and a minimally trained operator can perform a servicing operation efficiently (Ryan, col.1, lines 13-40 and col. 2, lines 27-29 and col. 20, lines 14-24).

Harris teaches a technique for encoding and decoding data source identification information magnetically (see the entire disclosure).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the Burns' passive ROM device by the Harris magnetically encoded tag in order to provide an economic and efficient mechanism for exchanging data and information between a source and a reader (Harris, col. 1, lines 7-13 and col. 2, lines 8-29; Ryan, col. 10, lines 31-41).

Beaudoin et al. disclose a system and method for monitoring fluid distribution, and teach: using a hand-held unit to transmit a first set of data, obtained from a probe

and associated with a particular vehicle port to be serviced, to a service vehicle (col. 5, lines 6-34, lines 61-67; and col. 9, lines 1-17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the Burns' hand-held unit by the Beaudoin hand-held RF data communication terminal in order to transmit information obtained at a vehicle port to a service vehicle unit (Beaudoin et al., Abstract).

The teachings of Burns further include repeating said steps to deliver various types of fluid to a plurality of customer vehicles (Fig. 1 and col. 6, lines 47-67; col. 11, lines 3-14 and col. 12, lines 5-39). In view of the teachings of Burns, one having ordinary skill in the art would be able to apply the same technique to carry out the method for a plurality of ports on one vehicle. The mere application of a known method to a group of instances by those skilled in the art would have been obvious.

The teachings of Burns further include using a series of beeps to validate selection of the port as the intended port (col. 11, lines 26-41). On the other hand, Beaudoin et al. teach a horn controlling means for controlling the horn of the customer vehicle, and making a sound, whenever needed in monitoring fluid distribution for heavy duty vehicles, by use of the horn controller (col. 7, lines 5-6 and col. 9, lines 1-17). It would have been obvious to include the teaching of Beaudoin horn controller in the Burns system in order to provide a better means for making a warning sound in validating the selection of the port (Beaudoin, et al., col. 9, lines 1-17).

Beaudoin et al. further teach that: a horn is actuated by the signal to validate selection of the port as the intended port (col. 7, lines 5-6 and col. 9, lines 1-17); and the

signal causes the sounding of an alarm, the alarm warning of improper distribution of the product (col. 7, lines 5-6 and col. 9, lines 1-17). It would have been obvious to include the teaching of Beaudoin horn controller and warning means in the Burns system in order to verify distribution of proper fluid to the appropriate port on a customer vehicle (Beaudoin, et al., col. 9, lines 1-17).

3. Claims 13-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns (U.S. Pat. No. RE36510) in view of Harris (U.S. Pat. No. 3995145) and Beaudoin et al. (U.S. Pat. No. 6047250).

Burns further teaches a system, method and apparatus for passively monitoring distribution of fluid products from distribution sources to fill ports (or tanks) on a vehicle (see abstract; col. 1, lines 13-24; col. 7, lines 62-67 and col. 8, lines 1-5), comprising: an encoded port identifying step and means associated with each fill port on a vehicle to be serviced, said port identifying step and means containing port data relating to the identity of the vehicle, the identity of the corresponding fill port, and the type of material to be dispensed to the port (Fig. 1; col. 6, lines 13-28, lines 38-67; col. 8, lines 61-67; col. 9, lines 1-13 and col. 10, lines 58-67); reader step and means for reading said port data and downloading same to an on-board computer associated with the distribution sources of said fluid products (Fig. 1; col. 6, lines 13-28, lines 38-67; col. 8, lines 61-67 and col. 9, lines 1-13); flow monitoring and controlling step and means associated with said on-board computer and the distribution sources and operative to generate flow data indicating a particular distribution source, the type of fluid to be dispensed from said particular distribution source, and the volume of fluid actually dispensed from said

particular distribution source in servicing a fill port (col. 5, lines 56-67; col. 6, lines 1-13, lines 47-67; col. 7, lines 1-5; col. 10, lines 42-57; col. 11, lines 60-67 and col. 12, lines 1-4); and step and means for producing a record of said port data, said flow data (col. 7, lines 62-67; col. 8, lines 1-5 and col. 12, lines 40-56). Burns further teaches that: said port data includes information relating to the type of material to be distributed to a particular type of fill port (col. 6, lines 13-28 and col. 8, lines 31-60); the flow monitoring step and means includes Delivery Lists identifying the type of material to be put into a particular type of port (col. 6, lines 13-37; col. 9, lines 63-67 and col. 10, lines 13-57); step and means for determining the location of said vehicle to be serviced and the time of servicing, and for reporting same to said step and means for producing a record whereby such location and time of servicing is included in said record (col. 6, lines 29-4 and col. 12, lines 5-31); said reader step and means is operative to generate operator data identifying the operator responsible for servicing said vehicle, and to transmit said operator data to said receiver (col.5, lines 28-67 and col. 6, lines 1-13); said reader step and means is operative to generate operator data identifying the operator responsible for servicing said vehicle and for transmitting said operator data to said receiver (col. 8, lines 61-67; col. 9, lines 1-13; and col.12, lines 40-56).

Burns does not mention explicitly: using an array of polarized magnets to uniquely identify each fill port; using a magnetic reader to read the port data associated with a particular port; transmitting said port data to a remote receiver; the step and means associated with said flow monitoring step and means for comparing said port data to said flow data and operative to generate an alarm in the event that any aspect of

said port data is incompatible with any aspect of said flow data; producing a record of said port data, said flow data and the fact that an alarm was generated; using lookup table to store the data about the type of material to be put into a particular port; use of an array of organized indicators and associated set of code terms to uniquely identify a particular vehicle, a particular port and the type of material to be distributed to said particular port.

Harris teaches a technique for encoding and decoding data source associated with identification information magnetically, wherein an array of polarized magnets are used to provide uniquely identify of an object (see the entire disclosure).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Harris in the Burns method, system and apparatus in order to provide an economic and efficient mechanism for identifying data sources (Harris, col. 1, lines 7-13 and col. 2, lines 8-29).

Beaudoin et al. disclose a system for monitoring fluid distribution for heavy duty vehicles and teach: step and means for transmitting the tank identifying data collected from a handheld data terminal to a remote receiver mounted to a customer heavy duty vehicle (see abstract; col. 3, lines 24-50 and col. 8, lines 50-58); step and means for comparing said tank identifying data to flow data and operative to generate an alarm in the event that any aspect of said tank data is incompatible with any aspect of said flow data (col. 9, lines 1-17); step and means for producing a record of said tank data, said flow data and the fact that an alarm was generated (col. 8, lines 59-67 and col. 9, lines 1-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teachings of Beaudoin data communication mechanism, alarm generation mechanism, and job logging mechanism in the Burns system in order to provide the operator with an efficient way to communicate with the remote receiver, and to provide a step and means for logging the operation of the system more effectively (see Abstract; col. 8, lines 59-67 and col. 9, lines 1-30).

It is obvious that a data structure such as a lookup table is well known in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a lookup table for the purpose of storing well organized and repetitive data records about the type of products to be distributed.

It is also obvious to one having ordinary skill in that art that an array of organized indicators and the associated set of code terms are equivalent to the key fields and the primary key which makes a row of data unique and identifiable in a relational database table. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a primary key constraint to said lookup table in order to uniquely identify each row of stored data about said vehicle, said port and said type of material to be distributed to said port. The mere application of a known technique to a specific instance by those skilled in the art would have been obvious and is within the level of ordinary skill in the art.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Argument

5. Applicant's arguments with respect to claims 1-4, 9 and 11-26 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-4, 9 and 11-26 are rejected as new prior art references (U.S. Pat. No. 5913180 to Ryan) has been found to teach, besides other limitations recited in claims 1-4, 9, 11 and 12 of the instant application, the steps and means of: using a run time sensor and a reader to obtain at the work vehicle the run time signal corresponding to the accumulated run time of a work vehicle engine, and transmitting said run time signal to the service control center in real time; engaging said reader to a data source associated with a particular vehicle fill port selected for service to obtain a first set of fill

port data, and transmitting said first set of fill port data to the service control center in real time; and receiving in real time at the service control center the transmitted first set of fill port data and using same together with the known type of fluid product made ready for distribution to determine whether or not the selected fill port is about to be serviced with an appropriate fluid product. For detailed discussion, please refer to sections 2 set forth above in this Office Action.

In response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily in a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971). In this case, it is deemed that all the cited prior art references are in the same area. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine or modify the teachings of the references in order to provide a passive fuel delivery system in which security, identification and fuel delivery transaction information can be exchanged and validated automatically so that a minimally trained operator can perform a servicing operation without experiencing a complicated procedure, as suggested by Ryan (U.S. Pat. No. 5913180).

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Xiuqin Sun
Examiner
Art Unit 2863

XS
May 12, 2004

John Barlow
Supervisory Patent Examiner
Technology Center 2800